receiving from the agent at the server through the internet the identity and address

of the agent and an indication of the receipt by the agent of the message and the

10   identification and internet address of the server and the identity [identify] of the sender [and

the digital signature of the message], and

sending to the sender from the server through the internet a copy of the message

and the information received by the server from the agent and a digital signature of the

message received by the server from the agent of the recipient.

86. (Amended) A method as set forth in claim 84 wherein

the server identifies any attachment to the message and wherein

the identity of the attachment is received by the server through the internet from the

agent and wherein

the server sends to the sender through the internet a copy of the attachment

received from the agent and a digital signature of the attachment.

87. (Amended) A method as set forth in claim 84 wherein

a digital signature [fingerprint] of the message is provided at the server by a plurality

of digits in a unique sequence and is sent by the server to the sender.

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90.   (Amended) A method of transmitting a message through the internet from a

sender to a recipient through a server displaced from the recipient, including the steps at

the server of:

receiving the message at the server from the sender,

5   transmitting from the server through the internet to an agent of the recipient the

message and the identity and internet address of the server and an indication representing

the identity of the sender,

receiving at the server from the agent a handshaking and delivery history of the

message from the server to the agent, and

10   transmitting from the server to the sender through the internet the message, a digital

signature, including a digital signature [fingerprint], of the message and the handshaking

and delivery history of the message received by the server from the agent.

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91. (Amended) A method as set forth in claim 90 wherein

the server receives from the sender a copy of the information previously sent by the

server to the sender, this information including the digital signature and the message, when

the sender wishes to have the message authenticated by the server and wherein

5   the server does not retain[s] a copy of the any of the information transmitted from

the server to the [digital signature of the message and the handshaking and delivery history

of the message, but not a copy of the message unless requested to do so by the] sender,

after the server transmits to the sender through the internet the message, the digital

signature of the message and the handshaking and delivery history of the message.

92. (Amended) A method as set forth in claim <u>91</u> [90] wherein

<u>the server receives from the sender the information previously transmitted by the</u>

<u>server to the sender and wherein</u>

<u>the server uses the information received by the server from the sender to create a</u>

5   <u>digital signature and compares this digital signature with the digital signature received by</u>

<u>the server from the sender to authenticate the message received by the server from the</u>

<u>sender</u>

[the server retains a copy, except for the message, of the information received by

the server from the agent and sent to the sender and wherein

10   when the sender wishes to authenticate that the message was sent by the server

to the agent, the server matches the information, except for the message, sent by the

server to the sender relating to the message with the information retained by the server

relating to the message].

97. (Amended) A method as set forth in claim 93, including the steps at the <u>server</u> [sender] of:

receiving from the <u>sender at the</u> server through the internet, at the same time as the receipt of a copy of the message <u>from</u> [to] the <u>sender to</u> [agent from] the server, a copy of any attachment to the message [and a digital signature, including a digital fingerprint, of the attachment], and

providing for a transmittal from the agent to the server through the internet of [the digital signature, including the digital fingerprint, of] the attachment at the same time as the transmittal of the message from the agent to the server.

98. (Amended) In a method of transmitting a message through the internet from a sender to a recipient through a server displaced from the recipient, the steps at the server of:

receiving the message at the server from the <u>recipient</u> [sender],

generating a hash constituting a synopsis of the message in coded form,

encrypting the hash with a particular encryption code to generate a digital <u>signature</u> [fingerprint] of the message, and

transmitting the message and the digital <u>signature</u> [fingerprint] of the message through the internet to the sender.

99. (Amended) In a method as set forth in claim 98, the steps at the server of:

generating, for any attachment to the message, a hash constituting a synopsis of the attachment in coded form,

encrypting the hash with a particular encryption code to generate a digital <u>signature</u> [fingerprint] of the attachment, and

transmitting the attachment and the digital <u>signature</u> [fingerprint] of the attachment to the sender through the internet at the same time that the message and the digital <u>signature</u> [fingerprint] of the message are transmitted from the server to the sender through the internet.

100. (Amended) In a method as set forth in claim 98, the steps at the server of:

<u>removing the message and the digital signature of the message from the server after the transmission of the message and the digital signature of the message from the server to the sender</u>

[transmitting to an agent for the recipient through the internet the identity of the sender and the identity and internet address of the server at the same time that the server transports to the agent the message through the internet; and

receiving from the agent through the internet, the name of the sender, the name and internet address of the server and the identity and internet address of the agent].

101. (Amended) In a method as set forth in claim 99, the steps at the server of:

removing the message and the digital signature of the message from the server after

the transmission of the message and the digital signature of the message from the server

to the sender, and

5   removing the attachment, and the digital signature of the attachment, from the server

after the transmission of the attachment, and the digital signature of the attachment, from

the server to the sender

[transmitting to an agent for the recipient through the internet the identity of the

sender and the identity and internet address of the server at the same time that the server

10   transports to the agent the message through the internet;

receiving from the agent through the internet the name of the sender, the name and

internet address of the server and the identity and internet address of the agent; and

receiving from the agent through the internet the digital fingerprint of the attachment

at the same time that the server receives the digital fingerprint of the message through the

15   internet].

102. (Amended) In a method as set forth in claim <u>98</u> [100], the step at the server

of:

<u>receiving at the server from the sender the message, and the digital signature of the</u>

<u>message, previously transmitted from the server to the sender</u>

5   [storing at the server the digital fingerprint of the message, the name of the sender,

the identity and internet address of the server and the identity and internet address of the

agent, and

transmitting to the sender for storage by the sender the digital fingerprint of the

message, the name of the sender, the identity and internet address of the server and the

10   identity and internet address of the agent].

103. (Amended) In a method as set forth in claim 101, the step[s] of:

authenticating the message on the basis of the message, and the digital signature of the message, transmitted from the sender to the server

[storing at the server a digital fingerprint of the message, the name of the sender,

5   the identity and internet address of the server and the identity and internet address of the agent,

transmitting at the server to the sender for storage by the sender a digital signature [fingerprint] of the message, the name of the sender, the identity and internet address of the server and the identity and internet address of the agent,

10   storing at the server a digital fingerprint of the attachment, and

transmitting at the server through the internet to the sender, for storage by the sender, the digital signature of the attachment, as received by the server from the agent, at the same time that the server transmits to the sender through the internet the digital fingerprint of the message and the identity of the sender and the identity and e-mail

15   address of the server and the identity and internet address of the agent, all as received by the server from the agent].

104.   (Amended) In a method as set forth in claim 102, the step of:

<u>authenticating at the server the message received by the server from the sender on</u>

<u>the basis of the message, and the digital signature of the message, transmitted from the</u>

<u>sender to the server, the authentication being provided by generating the digital signature</u>

5   <u>of the message received by the server from the sender and by comparing the generated</u>

<u>digital signature and the received digital signature</u>

[sending at the server to the sender through the internet the message received by

the server from the sender with an appendage of the digital fingerprint of the message for

storage by the sender].

105.   (Amended) In a method as set forth in claim 103, the step of:

<u>authenticating at the server the message received by the server from the sender on</u>

<u>the basis of the message, and the digital signature of the message, transmitted from the</u>

<u>sender to the server, the authentication being provided by generating the digital signature</u>

5 . <u>of the message received by the server from the sender and by comparing the generated</u>

<u>digital signature and the received digital signature and by indicating the authentication</u>

<u>when the generated digital signature and the received digital signature are the same.</u>

[sending at the server to the sender through the internet the message received by

the server from the sender with an appendage of the digital fingerprint of the message for

storage by the sender].

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106.   (Amended) In a method of transmitting a message through the internet from a sender to an agent for the recipient through a server displaced from the agent, the steps at the server of:

receiving the message at the server from the sender,

5   [generating a hash constituting a synopsis of the message of the message in encoded form,

[encrypting the hash with a particular encryption code to generate a digital fingerprint of the message,]

transmitting the message and the identity of the sender and the identity and internet

10   address of the server through the internet from the server to the agent,

receiving at the server through the internet any transmission through the internet from the agent concerning the message from the sender, and

determining from the transmission received by the server from the agent, or from the lack of any reception by the server through the internet from the agent [mail transport

15   authority], the delivery status of the transmission by the server to the agent and the delivery status of any delivery of the message by the agent to the recipient.

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107. (Amended) In a method as set forth in claim 106, the steps at the server of:

periodically examining the delivery status of the message transmitted to the agent

and the [delivery] status of any delivery of the message by the agent to the recipient, and

transmitting the message and the digital signature [fingerprint] of the message and

5   the identity of the sender and the identity and internet address of the server through the

internet to the sender with an indication of the delivery of the message to the agent when

the server determines from the periodic examination that the message has been delivered

to the [said] transport agent.

108. (Amended) A method of transmitting a message through the internet from a sender to an agent for a recipient through a server displaced from the agent, including the steps at the server of:

receiving the message at the server,

5   [providing a digital signature of the message,]

transmitting through the internet to an agent of the recipient the message and the identity of the sender and the identity and the internet address of the server,

receiving <u>from the agent</u> the <u>message and the</u> identity and internet address of the agent and the identity of the sender and the identity and internet address of the server,

10   [and]

<u>providing a digital signature of what was received from the agent, and</u>

providing to the sender the information received by the server from the agent and the digital <u>signature</u> [fingerprint] of the <u>information received by the server</u> [message].

109. (Amended) A method as set forth in claim 108, including the steps at the server of:

providing to the sender the message at the same time as the provision of the digital <u>signature</u> [fingerprint] of the message to the sender, and

5   [retaining the information provided to the sender but] discarding the message provided to the sender.

110. (Amended) A method as set forth in claim 108, including the steps at the server of:

receiving from the agent [providing] an indication of the date and time of the reception by the agent of the identity and internet address of the agent and the identity of

5   the sender and the identity and the internet address of the server [from the agent], and

providing to the sender the indication of the date and time of the reception by the agent of the [digital fingerprint from the agent] identity and internet address of the agent and the identity of the sender and the identity and internet address of the server.

111. (Amended) A method as set forth in claim 108, including the steps at the server of:

receiving from the sender a copy of the message provided by the server and a copy of the digital signature of the message and the identity and internet address of the agent

5   and the identity of the sender and the identity and internet address of the server, [and]

[comparing the digital fingerprint of the message and the identity and internet address of the agent and the identity of the sender and the identity and internet address of the server, all as received from the sender, and the identity and internet address of the agent and the identity of the sender and the identity and internet address of the recipient,

10   all as provided by the server, and the digital signature of the message at the server,] and

generating a digital signature of what has been received from the sender,

comparing the digital signature received by the sender and the digital signature generated by the server, and

authenticating the message received from the sender on the basis of the

15   comparison provided at the server.

112. (Amended) A method as set forth in claim 108, including the steps at the server of:

forming at the server the digital signature [fingerprint] of the message by providing a hash of the message and then

5   encrypting the hash of the message.

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113.   (Amended) A method as set forth in claim 108, including the steps at the

server of:

providing a digital <u>signature</u> [fingerprint] of an attachment to the message,

transmitting to the agent the attachment at the same time as the transmittal of the

10   message, and

transmitting to the sender the digital <u>signature</u> [fingerprint] of the attachment at the

same time as the transmission of the digital <u>signature</u> [fingerprint] of the message <u>to the</u>

<u>sender</u>.

114. (Amended) A method as set forth in claim 112, including the steps at the server of:

providing an indication of the date and time of the reception of the message from the agent, and

5   providing to the sender the indication of the date and time of providing to the server the digital <u>signature</u> [fingerprint] of the message from the agent at the time of providing to the sender the digital <u>signature</u> [fingerprint] of the message,

providing to the sender the message at the same time as the provision of the digital <u>signature</u> [fingerprint] of the message to the sender, and

10   [retaining the information provided to the sender but] discarding the message provided to the sender,

providing a digital <u>signature</u> [fingerprint] of an attachment to the message,

transmitting to the <u>sender</u> [agent] the attachment at the same time as the transmittal of the message <u>to the sender</u>,

15   transmitting to the sender the digital <u>signature</u> [fingerprint] of the attachment at the same time as the transmission of the digital <u>signature</u> [fingerprint] of the message <u>to the sender</u>,

receiving from the sender a copy of the message provided to the sender and a copy of the digital signature of the message and the identity and internet address of the agent

20   and the identity of the sender and the identity and internet address of the server,

[comparing the digital signature of the message and the identity and internet address of the agent and the identity of the sender and the identity and internet address of the server, all as received from the sender, and the digital signature of the message and the identity and internet address of the agent and the identity of the sender and the identity and

25   internet address of the recipient, all as provided by the server, and]

generating a digital signature of what has been received from the sender relating to the message,

comparing the digital signature received from the sender and the digital signature generated on the basis of what has been received from the sender relating to the

30   message, and

authenticating the message received from the sender on the basis of the comparison provided by the server.

115. (Amended) In a method of transmitting a message through the internet from

a sender to an agent for a recipient through a server displaced from the recipient, the steps

at the server of:

receiving the message from the agent,

5   providing at the server a digital signature [fingerprint] of the message received from

the agent,

[storing at the server the digital signature of the message,] and

transmitting to the sender the message received from the agent and the digital

signature [fingerprint] of the message for storage by the sender.

116.   (Amended) In a method as set forth in claim 115, the step at the server of:

discarding the message after the transmission of the message and the digital

signature [fingerprint] of the message to the sender.

117. (Amended) In a method as set forth in claim 116 the steps at the server of:

receiving from the sender copies of the message and the digital signature [fingerprint] of the message,

generating a digital signature on the basis of what has been received from the

5   sender,

comparing the digital signature [fingerprint] of the message from the sender and the [stored] digital signature generated at the server [fingerprint of the message,] and

authenticating the message on the basis of the results of the comparison.

118. (Amended) In a method as set forth in claim 115,

10   providing at the server, at the same time as the provision of the digital signature [fingerprint] of the message at the server, the identity of the sender and the identity and internet address of the server and the identity [address] and internet address of the mail transport agency, all as received by the server from the agent,

[storing at the server the information received by the server from the agent,] and

15   transmitting to the sender the identity of the sender, the identity and internet address of the server and the identity and internet address of the agent, all as received by the server from the agent, at the same time as the transmission of the message, and the digital signature [fingerprint] of the message, to the sender.

119. In a method as set forth in claim 115, the steps at the server of:

20   receiving an attachment from the agent,

providing at the server a digital signature of the attachment,

[storing at the server the digital fingerprint of the attachment of the message,] and

transmitting to the sender, at the same time as the transmission of the message and

the digital signature of the message, the attachment and the digital signature [fingerprint]

25   of the attachment [as received by the server].

120. (Amended) In a method as set forth in claim 119, the steps at the server of:

receiving from the sender copies of the message and the attachment of the

message, [and the digital fingerprint of the message and the attachment, and]

generating digital signatures of the message and the attachment from the message

5   and the attachment received by the server from the sender, and

respectively comparing the received digital signatures [fingerprint] of the message

and the attachment and the digital signatures generated at the server of the message and

the attachment on the basis of what has been received from the sender [stored digital

signatures of the message and the attachment] to authenticate the message and the

10   attachment on the basis of this comparison.

121. (Amended) In a method as set forth in claim 119, the steps at the server of

receiving [storing] at the server from the agent, at the same time as the reception

[provision of the digital fingerprints] of the message and the attachment of the message

from the agent [at the server], the identity of the sender and the identity and internet

5   address of the server and the identity [address] and internet address of the agent, all as

received by the server from the agent,

transmitting to the sender the identity of the sender, the identity and internet address

of the server, [the identity of the sender,] and the identity and internet address of the agent,

all as received by the server from the agent, at the same time as the transmission to the

10   sender of the message and the attachment and the digital signature [fingerprint] of the

message and of the attachment to the sender.

122. (Amended) A method of transmitting a message through the internet from a sender to an agent for a recipient through a server displaced from the agent, including the steps of

15   providing the message from the sender at the server,

[providing at the server a digital signature of the message and the identity of the sender and the identity and internet address of the server,]

transmitting to the agent the message and the identity of the sender and the identity and the internet address of the server,

20   providing at the agent an indication of the status of the reception at the agent of the transmittal from the server to the agent of the message and the identity of the sender and the identity and internet [interest] address of the server, [and]

transmitting to the server from the agent the message and the identity and internet address of the agent and the status of the reception at the agent of the message and the

25   identity of the sender and the identity and internet address of the server[.], and

providing at the server a digital signature of what has been received by the server from the agent.

123. (Amended) A method as set forth in claim 122, including the steps of:

providing an attachment to the message,

[providing at the server a digital signature of an attachment to the message,]

transmitting the attachment to the agent at the same time as the transmittal of the

5   message to the agent,

providing at the agent the status of the reception of the attachment at the same time

as the provision at the agent of the status of the reception of the message, [and]

transmitting to the server from the agent the status of the reception of the

attachment at the same time as the transmittal to the server from the agent of the status

10   of the reception of the message, and[.]

providing at the server a digital signature of the attachment.

124. (Amended) A method as set forth in claim 122 wherein

the digital signature [fingerprint] of the message includes a digital digest of the

message and an encryption of the digital digest.

126. (Amended) A method as set forth in claim 122 wherein

the server transmits to the sender the message and [the digital fingerprint of the message and] the identity of the sender and the identity and internet address of the server and the identity and internet address of the agent and the status at the agent of the

5   reception at the agent of the message and the digital signature of what has been received by the server from the agent.

128. (Amended) A method as set forth in claim 122 wherein

the digital signature [fingerprint] of the message includes a digital digest of the message and an encryption of the digital digest,

the agent includes the date and time of the transmission by the agent to the server,

5   and

the server transmits to the sender the message and the digital signature [fingerprint] of the message and the identity of the sender and the identity and internet address of the server and the identity and internet address of the agent and the delivery status [at the agent of the reception at the agent] of the message [and the digital fingerprint of the

10   message], and

the delivery status of the message at the agent includes at least one of the following: (a) DELIVERED, (b) RELAYED, (c) DELIVERED-AND-WAITING FOR DELIVERY STATUS NOTIFICATION (DSN), (d) DELIVERED-TO-MAILBOX, and (e) FAILED, UNDELIVERABLE.

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15   129. (Amended) A method as set forth in claim 128, including the steps of:

providing at the server [a digital fingerprint of] an attachment to the message,

transmitting the attachment to the message to the agent at the same time as the

transmittal of the message to the agent,

providing at the agent the status of the reception of the attachment at the same time

20   as the provision at the agent of the status of the reception of the message, and

transmitting to the server from the agent the status of the reception of the

attachment at the same time as the transmittal to the server from the agent of the status

of the reception of the message.

130. (Amended) A method of transmitting a message through the internet from a

25   sender to an agent for a recipient through a server displaced from the agent, including the

steps at the server of:

providing at the server [a digital fingerprint of] the message and the identity of the

sender and the identity and internet address of the server,

transmitting to the agent the message and the identity of the sender and the identity

30   and internet address of the server,

receiving from the agent the <u>message and the</u> identity of the sender and the identity

and internet address of the server and the identity and internet address of the agent and

an indication of the status of the reception of the message at the agent, and

transmitting to the sender the message and the information received by the server

35   from the agent relating to the message.

131. (Amended) A method as set forth in claim 130, including the steps at the server of:

[providing at the server a digital signature of an attachment to the message,]

transmitting to the agent an [the] attachment at the same time that the message is

5   transmitted [transported] to the agent,

receiving from the agent the status of the reception at the agent of the attachment

at the same time that the server receives from the agent the status of the reception at the

agent of the message, and

transmitting to the sender the attachment and the information received by the server

10   from the agent relating to the attachment at the same time that the server transmits to the

sender the message and the information received by the server from the agent relating to

the message.

134. (Amended) A method as set forth in claim 133 wherein

the server also transmits to the sender the date and time of the transmission to the

sender of the status of the reception by the agent of the attachment [message].

136. (Amended) A method as set forth in claim 134 wherein

the server transmits to the sender the identity of the sender and the identity and

internet address of the server at the same time that it transmits the message [and the

digital fingerprint of the message] to the sender and wherein

5   the server authenticates the message on the basis of what it has received from the

sender

[the server stores the identity of the sender and the identity and the internet address

of the server and the digital fingerprint of the message and wherein

the server compares the stored identity of the sender and the identity and the

10   internet address of the server, all as stored by the server, and the identity of the sender

and the identity and the internet address of the server, all as received by the sender, to

authenticate the message transmitted from the server to the sender].

137. (Amended) A method as set forth in claim 134 wherein

the server transmits to the sender the identity and internet address of the agent and

the status of the reception of the message, all as received by the server from the agent,

and the digital <u>signature</u> [fingerprint] of the message and wherein

5   <u>the sender sends to the server, at the time that the sender wishes to have the</u>

<u>message authenticated, what it has received from the sender and wherein</u>

<u>the server authenticates the message on the basis of what it has received from the</u>

<u>sender after the sender wishes to have the message authenticated.</u>

[the server stores the identity and internet address of the agent and the status of the

10   reception of the message received by the agent, all as received by the server from the

agent and the digital signature of the message, and wherein

the server compares the stored identity and internet address of the agent and the

status of the reception of the message and the digital signature of the message with the

identity and internet address of the agent and the status of the reception of the message

15   and the digital signature of the message all as received by the sender from the server, to

authenticate the message transmitted from the server to the sender.]

138. (Amended) A method as set forth in claim 136 wherein

the server does not store the message after it transmits the message to the sender and wherein

the server transmits to the sender the message and the identity and internet address

5   of the agent and the status of the reception of the message received by the agent, all as

received by the server from the agent, and the digital signature [fingerprint] of the

message, and wherein

the server authenticates the message solely on the basis of what it has received

from the sender after the sender desires to authenticate the message.

10   [the server stores the identity and internet address of the agent and the status of the

reception of the message and the digital signature of the message received by the agent,

all as received by the server from the agent, and the digital signature of the message and

wherein

the server compares the stored identity and internet address of the agent and the

15   status of the reception of the message and the digital signature of the message with the

identity and internet address of the agent and the status of the reception of the message

and the digital signature of the message, all as received by the sender from the server, to

authenticate the message transmitted from the sender to the server.]

139. (Amended) A method of authenticating a message transmitted through the internet from a sender to a recipient through a server displaced from the recipient, including the steps at the server of:

transmitting to the sender the message and a digital signature [fingerprint] of the

5 message, and a status of the reception of the message by an agent for the recipient,

[storing the digital signature of the message at the server and the status of the reception of the message by the agent,]

receiving from the sender the message, the digital signature [fingerprint] of the message and the status of the reception of the message by the agent, [and]

10 producing a digital signature of the information received from the sender, and

comparing the [stored] digital signature [fingerprint] of the message produced from the information received from the sender and the digital signature [fingerprint] of the message generated [as received] by the server from the sender to authenticate the message transmitted from the sender [server] to the server [sender].

140. (Amended) A method as set forth in claim 139 wherein

the server does not store the information, including the message, transmitted from

the server to the sender after the server transmits the information to the sender.

[the server stores the information transmitted by the server relating to the status of

5   the reception of the message and the digital signature of the message but does not store

the message and wherein

the server compares the information stored by the server, and the information

provided by the sender, relating to the status of the reception by the agent of the message,

and the digital signature of the message, to authenticate the message transmitted by the

10   server to the sender.]

141.   (Amended) A method as set forth in claim 139 wherein

the server provides, in determining the digital signature, the identity of the sender

and the identity and the internet address of the server, and wherein

the server transmits to the sender the identity of the sender and the identity and

5   internet address of the server, all as transmitted by the agent to the server and wherein

the server receives from the sender the identity and internet address of the server

and wherein

[the server stores the identity of the sender and the identity and internet address of

the server, all as transmitted by the agent to the server and wherein]

10   the server includes the identity of the sender and the identity and internet address

of the server in producing the digital signature of the information from the sender and

wherein

the server compares the digital signature from the sender and the digital signature

generated by the server from the information received by the server from the sender

15   [information stored by the server, and the information provided by the sender, relating to

the identity of the sender and the identity and information address of the server] to

authenticate the message transmitted by the sender [server] to the server [sender].

142.   (Amended) A method of authenticating a message transmitted through the internet from a sender to an agent for a recipient through a server displaced from the agent, including the steps of:

transmitting to the sender the message and a digital <u>signature</u> [fingerprint] of the

5   message and a status of a reception by an agent for the recipient of the message,

<u>receiving at the server the information transmitted by the sender to the server,</u>

<u>generating a digital signature of the information received by the server,</u>

[storing the digital signature of the message at the server,] and

comparing the [stored] digital <u>signature</u> [fingerprint] <u>generated by the server from the</u>

10   <u>information received by the server from the sender</u> [of the message] and the digital

<u>signature</u> [fingerprint] of the message transmitted <u>by</u> [to] the sender <u>to the server</u> to

authenticate the message transmitted from the <u>sender</u> [server] to the <u>server</u> [sender].

144.   (Amended) A method as set forth in claim 142 wherein

the server transmits to the sender the identity of the sender and the identity and

internet address of the server at the same time that it transmits the message and the digital

signature [fingerprint] of the message to the sender and wherein

5   the sender transmits to the server the identity of the sender and the identity and the

internet address of the server at the same time that it transmits the message and the digital

signature of the message to the server

[the server stores the identity of the sender and the identity and the internet address

of the server at the same time that it transmits the message and the digital signature of the

10   message to the sender] and wherein

the server authenticates the message on the basis of the information that it receives

from the sender [receives from the sender the identity of the sender and the identity and

internet address of the server and wherein

the server compares the identity of the sender and the identity and the internet

15   address of the server, all as received by the server from the sender, with the stored identity

of the sender and the stored internet address of the server to authenticate the message

transmitted from the server to the sender].

145. (Amended) A method of transmitting a message through the internet from a sender to an agent for a recipient through a server displaced from the agent, including the steps at the server of,

receiving the message from the sender,

5   transmitting to the agent the message and a [fictitious] return address identifying [the message,] the sender and the recipient,

receiving from the agent [the fictitious return address identifying] the message and the identity of[,] the sender and the recipient, and

identifying the message transmitted from the server to the agent and received by

10   the server from the agent and identifying the message, the sender and the recipient.

146. (Amended) A method as set forth in claim 145 wherein

the server transmits to the sender [the fictitious return address received by the server from the agent and identifying] the message[,] and the identity of the sender and the recipient [for return by the sender] and wherein

5   the server receives from the sender [stores] the [fictitious return address received by the server from the agent and identifying the] message[,] and the identity of the sender and the recipient and wherein[.]

the server authenticates the message on the basis of information transmitted by the sender to the server after the receipt of the information by the server from the agent.

147.   (Amended) A method as set forth in claim 146 wherein

[the server transmits the message to the sender at the time that it transmits to the

sender the fictitious return address received by the server from the agent and identifying

the message, the sender and the recipient and wherein]

5   the server does not retain the message after it transmits the message to the sender.

148.   (Amended) A method as set forth in claim 145 wherein

the recipient is one of a plurality of recipients receiving the message from the server

and wherein

the [fictitious] return address identifies the recipient from among the recipients in the

5   plurality [group].

149.   (Amended) A method as set forth in claim 145 wherein

the message has an attachment and wherein

the [fictitious] return address also identifies the attachment to the message.

150.   (Amended) A method as set forth in claim 146 wherein

5   [the server transmits the message to the sender at the time that it transmits to the

sender the fictitious return address received by the server from the agent and identifying

the message, the sender and the recipient and wherein]

the server does not retain the message after it transmits the message to the sender

and wherein

10   the recipient is one of a plurality of recipients receiving the message from the server

and wherein

the [fictitious] return address identifies the recipient from among the recipients in the

plurality [group] and wherein

the message has an attachment and wherein

15   the [fictitious] return address also identifies the attachment to the message.

151.   (Amended) In a method of identifying a sender's message transmitted from

a server to an agent for a recipient, the steps at the server of:

transmitting to the sender a [fictitious] return address received by the server from the

agent and identifying the message, the sender and the <u>recipient</u> [receiver],

5   [storing in the server the fictitious return address transmitted by the server to the

sender, and]

receiving from the sender the [fictitious] return address transmitted by the server to

the sender <u>and identifying the message, the sender and the recipient</u>, and

<u>authenticating the message on the basis of the information transmitted by the</u>

10   <u>sender to the server</u>

[comparing the fictitious return address provided by the sender and the fictitious

return address stored in the server to authenticate the message provided by the sender].

152.   (Amended) In a method as set forth in claim 151 wherein[,]

the server transmits to the sender the message at the same time that it transmits the

[fictitious] return address to the sender and wherein

the server does not retain the message after it transmits the message to the sender.

5

153.   (Amended) In a method as set forth in claim 151 wherein[,]

the recipient is an individual one of a plurality of recipients receiving the message

from the server and wherein

the [fictitious] return address identifies the individual one of the recipients in the

plurality [group] receiving the message.

154.   (Amended) In a method as set forth in claim 151 wherein

the message has an attachment and wherein

the [fictitious] return address identifies the attachment to the message.

155.   (Amended) In a method as set forth in claim 152 wherein

the recipient is an individual one of a plurality of recipients receiving the message

from the server and wherein

the [fictitious] return address identifies the individual one of the recipients in the

5   plurality [group] receiving the message and wherein

the message has an attachment and wherein

the [fictitious] return address identifies the attachment to the message.

156.   (Amended) A method of transmitting a message through the internet from a

sender to an agent for a recipient through a server displaced from the recipient, including

the steps at the agent of:

receiving from the server through [though] the internet the message [and a digital

5   fingerprint, of the message] and the identity of the sender and the identity [name] and

internet address of the server, and

providing for a transmittal to the server through the internet the [digital fingerprint of

the] message and the identity of the sender and the identity [name] and internet address

of the sender [internet] and the identity [name] and internet address of the agent.

157.   (Amended) A method as set forth in claim 156, including the step at the agent

of:

indicating in the transmittal from the agent to the server [internet] whether or not the

message has been delivered by the agent to the recipient.

158.   (Amended) A method as set forth in claim 156, including the step at the agent

of:

indicating in the transmittal from the agent to the server [internet] that the message

and [the digital signature, of the message and] the identity of the sender and the identity

[name] and internet address of the server have been sent by the agent to another agent

for delivery to the recipient.

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                                      43

159.   (Amended) A method of providing a delivery at a first server of an electronic message from the first server to a destination address, including the steps of:

receiving at the first server an electronic message from a message sender for routing to the destination address,

5   transmitting the electronic message <u>from the first server</u> to a destination server for the destination address [and transactions between the first server and the destination server receiving the message] via a protocol selected from a group consisting of an SMTP and an ESMTP protocol, <u>and</u>

recording at the first server the transactions between the first server and the

10   destination server in the selected one of the protocols.

160.   (Amended) A method as set forth in claim 159, including the steps of:

including in the transaction<u>s</u> between the first server and the destination server <u>via the selected protocol</u> the identity of the sender, the identity and internet address of the first server and the identity and internet address of the destination server.

161.   (Amended) A method as set forth in claim 159, including the steps of:

providing transactions between the first server and the sender,

including, in the transactions between the first server and the sender, a digital <u>signature</u> [fingerprint] of the <u>transmission of the</u> electronic message <u>between the first</u>

5   <u>server and the destination server via the selected protocol</u> [from the message sender].

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162.   (Amended) A method as set forth in claim 159, including the step of:

recording, in the transactions between the first server and the destination server <u>via</u>

<u>the selected protocol</u>, the time for the sending of the message from the first server to the

destination server and the time for the receipt of the message by the destination server.

10   163.   (Amended) A method as set forth in claim 160, including the steps of:

providing transactions between the first server and the sender, and

including, in the transactions between the first server and the sender[,] a digital

<u>signature</u> [fingerprint] of <u>the transmission of</u> the electronic message <u>between the first</u>

<u>server and the destination server via the selected protocol</u> [from the sender], and

15   recording, in the transactions between the first server and the destination server[,]

<u>via the selected protocol</u> the time for the sending of the message from the first server to

the destination server and the time for the receipt of the message by the destination

server.

164.   (Amended) A method as set forth in claim 159, including the step of:

including in the transaction<u>s</u> between the first server and the destination server <u>via</u>

<u>the selected protocol</u> the status of the delivery of the message <u>to</u> [from] the destination

server <u>from</u> [to] the recipient.

165.   (Amended) A method as set forth in claim 159, including the step of:

receiving at the first server a [delivery status] notification relating to the status of the delivery of the message to the destination server via the selected protocol and the delivery of the message from the destination server to the recipient via the selected protocol.

166.   (Amended) In a method of verifying at a first server a delivery of an electronic message to a destination server for a recipient, the steps of:

transmitting the electronic message from the first server to the destination server through a transaction between the first server and the destination server via a protocol

5   selected from the group consisting of an SMTP protocol and an ESMTP protocol,

[recording at the first server the transactions between the first server and the destination server in the selected one of the protocols,] and

transmitting from the first server to the sender the message and the transactions between the first server and the destination server in the selected one of the protocols.

168.   (Amended) In a method as set forth in claim 166, the step of:

releasing [destroying] the message at the first server after the transmission of the [copy of the] message in the selected one of the protocols by the first server to the destination server.

169.   (Amended) In a method as set forth in claim 166, the steps of:

providing [recording] at the first server a digital signature [fingerprint] of the

message, and

transmitting the digital signature [fingerprint] of the message from the first server to

5   the sender at the time of the transmission of the transaction in the selected one of the

protocols from the first server to the sender.

170.   (Amended) In a method as set forth in claim 169, the steps of:

transmitting from the first server to the sender a copy of the message at the time of

the transmission of the transaction between [of] the first server and the destination server

in the selected one of the protocols, and

5   releasing [destroying] the message at the first server after the transmission of the

copy of the message in the selected one of the protocols by the first server to the

destination server.

171.   (Amended) In a method as set forth in claim 170, the step of:

transmitting between the first server and the destination server the identity [name]

of the sender, the identity [name] and address of the first server and the identity [name]

and address of the destination server and the time of the receipt of the message by the first

5   server at the time of the transmission of the message from the first server to the sender.

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173. (Amended) In a method of verifying at a first server a message received by the first server from a sender and transmitted by the first server to a destination server for a recipient, the steps of:

receiving [recording] at the first server from the sender transactions between the first

5   server and the destination server relating to the message from the sender, the transactions between the first server and the destination server being provided via a protocol selected from the group consisting of an [a] SMTP protocol and an ESMTP protocol,

transmitting from the first server to the sender the message and the transactions between the first server and the destination server via the selected one of the SMTP

10   protocol and the ESMTP protocol, [and]

transmitting from the sender to the first server the message and the transactions in the selected one of the protocols, and

authenticating the message on the basis of the message and the transactions transmitted from the sender to the first server in the selected one of the protocols

15   [comparing at the first server the recorded transactions and the transactions previously transmitted from the first server to the sender and subsequently provided by the sender to the first server, thereby to authenticate the message transmitted by the first server to the sender when there is a correspondence in the comparison].

174.   (Amended) In a method as set forth in claim 173, the step of:

authenticating the message transmitted from the sender to the first server when the

comparison is available

[transmitting with the message from the first server to the sender a digital signature

of the message at the same time that the first server transmits to the sender the

transactions between the first server and the destination server via the selected one of the

SMTP protocol and the ESMTP protocol].

175.   (Amended) In a method as set forth in claim 170, the step of:

removing the message from the first server when the first server transmits to the

sender the message and the transactions between the first server and the destination

server via the selected one of the SMTP protocol and the ESMTP protocol.

176.   (Amended) In a method as set forth in claim 173, the steps of:

receiving [recording] at the first server the indication of the identity [name] of the

sender, the identity [name] and address of the first server and the identity [name] and

address of the destination server [at the time of the recording at the first server of the

5   transactions between the first server and the destination server] via the protocol selected

from the group consisting of the SMTP protocol and the ESMTP protocol, and

transmitting from the first server to the sender the identity [name] of the sender, the

identity [name] and address of the first server and the identity [name] and address of the

destination server at the time of the transmission from the first server to the sender

10   [destination server] of the message and the transaction between the first server and the

destination server via the protocol selected from the group consisting of the SMTP protocol

and the ESMTP protocol[,]

[the comparison at the first server including a comparison of the name of the sender,

the name and address of the first server and the name and address of the destination

15   server as received by the first server from the sender and as recorded by the first server].

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177.   (Amended) In a method as set forth in claim 175, the steps of

providing [recording] at the first server a [the] digital signature [fingerprint] of the

message and the transactions between the first server and the destination server relating

to the message from the sender, the transactions between the first server and the

5   destination server being provided via a protocol selected from the group consisting of an

SMTP protocol and an ESMTP protocol,

transmitting from the first server to the sender the message and the digital signature

of the message and the transactions between the first server and the destination server

via the selected one of the SMTP protocol and the ESMTP protocol,

10   transmitting the message from the first server to the sender and the [a] digital

signature [fingerprint] of the message at the same time that the first server transmits to the

sender the transactions between the first server and the destination server via the selected

one of the SMTP protocol and the ESMTP protocol[, and]

[comparing at the first server the recorded digital signatures and recorded

15   transactions with the digital signature and the transactions previously transmitted from the

first server to the sender and subsequently provided by the sender to the first server,

thereby to authenticate the message transmitted by the first server to the sender when

there is an correspondence in the comparison].

178. (Amended) In a method as set forth in claim 173, the steps of:

[recording at the first server an indication of the identity of the sender, the identity

and the address of the first server and the identity and address of the destination server

at the same time that the transactions between the first server and the destination address

5   are recorded at the first server,]

transmitting from the first server to the sender the identity of the sender, the identity

and address of the first server and the identity and address of the destination server at the

time that the message and the transactions between the first server and the destination

server are transmitted from the first server to the sender,[and]

10   transmitting from the sender to the first server the information transmitted from the

first server to the sender, and

[comparing at the first server the identity of the sender, the identity and address of

the first server and the identity and address of the destination server, all as transmitted to

the sender and as recorded in the first server, at the same time that the other comparisons

15   are made, thereby to authenticate the message transmitted by the first server to the sender

when there is a correspondence in the comparison.]

authenticating the message at the first server on the basis of the information

transmitted from the sender to the first server and representing the information previously

transmitted from the first server to the sender.

179.   (Amended) A method of verifying delivery at a first server of an electronic

message to a destination server for a recipient, including the steps of:

receiving at the first server an electronic message from a message sender for

routing to the destination server,

5   establishing at the first server a communication with the destination server,

transmitting from the first server the electronic message to the destination server

with a protocol transaction via a protocol selected from a group consisting of an SMTP

protocol and an ESMTP protocol,

recording at the first server the protocol transactions between the first server and the

10   destination server relating to the message,

transmitting from the first server to the sender the message and the protocol

transactions between the first server and the destination server,

transmitting from the sender to the first server the message and the protocol

transaction previously transmitted from the first server to the sender, and

15   authenticating the message at the first server on the basis of the message and the

protocol transactions transmitted from the sender to the first server

[providing at the first server a comparison of at least a particular portion of the

transactions in the selected one of the protocols as proof of delivery of the message by the

first server to the destination server, the comparison being provided between the

20   transaction protocol recorded at the first server and the transaction protocol received by

the sender from the server].

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180.   (Amended) A method as set forth in claim 178 wherein

the message and the at least particular portion of the transactions provided in the

selected one of the protocols [protocol] to the sender are [is] thereafter provided by the

25   sender to the first server, and

the message is authenticated by the first server on the basis of the message and

the at least particular portion of the transactions from the sender to the first server

[the at least particular portion provided in the selected protocol by the sender to the

first server is compared in the first server with the at least particular portion recorded in the

30   selected protocol at the first server to determine whether the message received by the

sender is authentic].

181.   (Amended) A method as set forth in claim 178 wherein

a digital signature [fingerprint] is made of the message at the first server and wherein

[the digital fingerprint is recorded at the first server with the protocol transactions and

wherein]

5   the digital signature [fingerprint] is transmitted from the first server to the sender with

the message and the protocol transactions between the first server and the destination

server and wherein

the digital signature [fingerprint] is thereafter provided by the sender to the first

server with the at least particular portion of the transactions in the selected protocol.

182.   (Amended) A method as set forth in claim 180 wherein

the message and the digital signature [fingerprint] and the at least particular portion

of the transactions provided in the selected protocol to the sender are thereafter provided

by the sender to the first server and wherein

5   a digital signature is produced at the first server on the basis of the message [digital

fingerprint] and the at least particular portion provided in the selected protocol by the

sender to the first server and wherein [are compared in the first server with the digital

signature and the at least particular portion recorded in the selected protocol at the first

server to determine whether the message received by the sender is authentic.]

10   the message is authenticated at the first server by establishing an identity between

the digital signature produced at the first server and the digital signature received by the

first server from the sender.

183.   (Amended) A method of verifying at a first server the delivery of an electronic

message from the first server to a destination server for a destination address including the

steps of:

receiving at the first server an electronic message from a message sender for

5   routing to the destination server,

transmitting from the first server to the destination server for the destination address

the electronic message and transactions between the first server and the destination server

relating to the electronic message via a protocol selected from the group consisting of an

SMTP protocol and an ESMTP protocol,

10   recording at the first server the transactions between the first server and the

destination server via the protocol selected from the group consisting of the SMTP protocol

and the ESMTP protocol,

transmitting from the first server to the sender the message and the transactions

between the first server and the destination server in the selected one of the protocols,

15   [and]

receiving at the first server from the sender the messages an the transactions

between the first server and the destination server in the selected one of the protocols, and

authenticating the message at the first server on the basis of the message received

by the first server from the sender and the transactions received by the first server from the

20   sender

[comparing at the first server the recorded transactions and the transactions previously transmitted from the first server to the sender and subsequently provided by the sender to the first server, thereby to authenticate the message transmitted by the first server to the sender when there is an identity in the comparison].

PLEASE ADD THE FOLLOWING CLAIMS:

184. A method as set forth in claim 122, including the step of:

transmitting from the server to the sender what has been received at the server from the agent and the digital signature of what has been received by the server from the agent.

185. A method as set forth in claim 184, including the step of:

transmitting to the server from the sender what has been received at the sender from the server, this transmission occurring when the sender wishes to authenticate the message, and

5   authenticating the message at the server on the basis of what has been transmitted from the sender to the server at the time that the sender wishes to authenticate the massage.

186.   A method as set forth in claim 137 wherein

the server provides a digital signature on the basis of what it has received from the

sender after the sender wishes to have the message authenticated and wherein

the server compares the digital signature that it has received from the sender and

5   the digital signature that it has created from the information received from the sender and

wherein

the server authenticates the message when the comparison is favorable.

187.   A method as set forth in claim 163, including the steps of:

transmitting from the sender to the first server the information transmitted from the

first server to the sender,

authenticating the electronic message on the basis of the information transmitted

5   from the sender to the first server representing the transactions between the first server

and the destination address via the selected protocol.

188.   A method as set forth in claim 163, the steps of:

providing a digital signature of the message and the transactions between the first

server and the destination server via the selected protocol, and

transmitting the digital signature of the message from the first server to the sender

at the same time that the message and the transactions between the first server and the

destination server are transmitted from the first server to the sender.

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189.   A method as set forth in claim 172, the steps of:

generating at the first server a digital signature solely on the basis of the message and the transactions transmitted from the sender to the first server, and

comparing at the first server the digital signature transmitted from the sender to the

5   first server ad the digital signature generated at the first server on the basis of the

transmission from the sender to authenticate the message transmitted from the sender to

the first server.

190.   A method as set forth in claim 173, including the steps of:

providing a digital signature of the message and the transactions between the first

server and the destination server via the selected protocol, and

transmitting the digital signature from the first server to the sender at the same time

5   as the transmission from the first server to the sender of the message and the transactions

via the selected protocol.

191.   A method as set forth in claim 189, the steps of:

transmitting from the sender to the first server the digital signature of the message at the same time as the transmission from the sender to the first server of the message and the transactions between the first server and the destination server in the selected one of the protocols, and

authenticating the message on the basis of the digital signature and the message and the transactions transmitted between the sender and the first server in the selected one of the protocols.

192. A method of authenticating a message transmitted through the internet from a sender to a recipient, including the steps at the server of:

providing a digital signature of the message,

transmitting the message and the digital signature to the sender,

receiving the message and the digital signature from the sender, and

authenticating the message on the basis of the message and the digital signature received by the server from the sender.

193.   A method as set forth in claim 192, wherein

the server prepares a digital signature of the message and an identification of the

sender and an identification and address of the server and an identification and address

of the recipient and wherein

5   the server transmits to the sender the message and the digital signature of the

message and the identification of the sender and the identification and address of the

server and the identification and address of the recipient and wherein

the server receives the message and the digital signature from the sender and

wherein

10   the server authenticates the message on the basis of the message and the digital

signature received by the server from the sender.

194.   A method as set forth in claim 192 wherein

the server prepares a digital signature of the message and a selected one of the

SMPT and ESMPT protocols involved in the transmission of the message from the server

to the recipient and wherein

5   the server transmits to the sender the message and the digital signature of the

message and the selected one of the SMPT and ESMPT protocols and wherein

the server receives the message and the digital signature from the sender and

wherein

the server authenticates the message on the basis of the message and the digital

10   signature received by the server from the sender.

195.   A method as set forth in claim 192 wherein

the server authenticates the message by preparing a digital signature of the

message and by comparing the prepared digital signature and the received digital

signature and confirming that they are identical.

196.   A method as set forth in claim 192 wherein

the server authenticates the message by preparing a digital signature of the

message and the identification of the sender and the identification and address of the

server and the identification and address of the recipient and by comparing the prepared

digital signature and the received digital signature and confirming that they are identical.

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197.   A method as set forth in claim 194 wherein

the server authenticates the message by preparing a digital signature of the

message and the selected one of the SMPT and ESMPT protocols and by comparing the

prepared digital signature and the received digital signature and confirming that they are

5   identical.

198.   A method as set forth in claim 192 wherein

the server transmits the message and the digital signature to the sender without

retaining a copy of the message and the digital signature.

199.   A method as set forth in claim 196 wherein

the server transmits to the sender the message and the digital signature and the

identification of the sender and the identification and address of the server and the

identification and address of the recipient without retaining any of this information.

200.   A method as set forth in claim 197 wherein

the server transmits to the sender the message and the digital signature and the

selected one of the SMPT and ESMPT protocols without retaining any of this information.

201.   A method of transmitting a message through the internet from a sender to a recipient through a server displaced from the recipient, including the steps at the server of:

transmitting to the recipient the message and an identification of the sender and an identification and address of the server and an identification and address of the

5   recipient,

receiving from the recipient the message and the identification of the sender and an identification and address of the server and an identification and address of the recipient, and

transmitting to the sender the message and the identification of the sender

10   and the identification and address of the server and the identification and address of the recipient.

202.   A method as set forth in claim 201 wherein

the server prepares a digital signature of the message and transmits the digital signature to the sender with the message.

203.   A method as set forth in claim 202 wherein

the server does not retain a copy of the message and the digital signature when it transmits the message and the digital signature to the sender.

204.   A method as set forth in claim 202 wherein

the server prepares a digital signature of the message, the identification of the sender, the identification and address of the server and the identification of the recipient and transmits the digital signature to the sender with the message.

205.   A method as set forth in claim 202 wherein

the server does not retain a copy of the message and the digital signature when it transmits the message and the digital signature to the sender, and

the server prepares a digital signature of the message and of the identification of the sender and the identification and address of the server and the identification of the recipient and transmits the digital signature to the sender with the message.

206.   A method of transmitting a message through the internet from a sender to a recipient through a server displaced from the recipient, including the steps at the server of:

transmitting to the recipient the message and an identification of the sender and a protocol selected from a group consisting of SMPT and ESMPT protocols.

receiving from the recipient the message and the selected one of the protocols, and

transmitting to the sender the message and the selected one of the protocols.

207. A method as set forth in claim 206, including the steps of:

preparing at the server a digital signature of the message, and

transmitting the digital signature from the server to the sender with the message.

208. A method as set forth in claim 206, including the step of:

not retaining at the server a copy of the message and the digital signature when the

server transmits the message and the digital signature to the sender.

209. A method as set forth in claim 206, including the step of:

preparing at the server a digital signature of the message and of the selected one

of the protocols, and

transmitting the digital signature from the server to the sender with the message.

210. A method as set forth in claim 207, including the steps of:

not retaining at the server a copy of the message and the digital signature when the

server transmits the message and the digital signature to the sender, and

preparing at the server a digital signature of the message and of the selected one

of the protocols, and

transmitting the digital signature from the server to the sender with the message.